

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

### **REMARKS**

The claim structure of the originally filed application has been substantially modified. The independent claims are now: claim 1 (a magnetically connected shoring device with linear rail posts, shoring panels, and trusses); claim 2 ( a magnetically connected shoring device with corner posts and shoring panels); claim 3 ( a magnetically connected shoring device with linear rail posts, corner posts, shoring panels, and trusses); claim 41 ( a shoring device having linear rail posts and trusses); claim 48 (a shoring device comprising the described truss), and claim 49 (a shoring device comprising the described corner rail).

The references cited in the first Office Action and by the applicant do not show any of these concepts.

### **SPECIFICATION**

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include reference numbers not mentioned in the description.

A reference to “1” has been inserted into the specification at page 6, relating to Figure 2.

The numeral “9” has been deleted from Figure 6.

References to numerals “14A” and “14B” have been added to the specification at page 6, relating to Figure 2.

Reference to numerals “21” has been added to the specification at page 7 with respect to Figures 7, 9, and 10.

References to numerals “24”, “25A”, “25B” have been added to the specification at page 6 with respect to Figure 2.

Reference to numerals “48A” and “48B” has been added to the paragraph at page 7 with respect to Figure 12.

Reference to numeral “49” has been added to page 8 with respect to Figure 16.

Numeral “54” is shown in Figure 13 and is already mentioned at page 8 of the specification.

Additionally, numerals “54A” and “54B” have been changed to “57A” and “57B” in Figure 14 to allay any confusion relating to their relation to the structural element labeled “54”.

#### **Abstract Objection**

The abstract has been objected to as not being on a separate sheet and having misspellings.

This Amendment corrects the bases for those objections.

#### **Disclosure Objection**

The specification was objected to because of the listing of patents in a section entitled “Cross-Reference to Related Applications.”

The documents have been cited in a separately submitted Information Disclosure Statement in compliance with 37 CFR 1.96-99. The noted section of the application has otherwise been deleted.

The specification was also objected to as having “misspellings and improper legal phraseology.” The specification has been reviewed and brought into consistency with U.S. practice.

#### **Claim Objection**

Claim 3 has been objected to under 37 CFR 1.75 as being in improper form.

Claim 3 has been amended to an independent form in which the substantive content of former claims 1 and 2 has been combined. The multiple dependency has been deleted.

Withdrawal of the objection is requested.

### **Rejection Under 35 U.S.C. 112, Paragraph Two**

Claims 1, 2, and 4-15 stand rejected under 35 U.S.C. 112, paragraph two. The claims are said to be "narrative in form and replete with functional or operational language" and as having other informalities.

The listed claims have been extensively re-written or cancelled. As amended, they conform to U.S. practice.

Withdrawal of the rejection is requested.

### **Rejection Under 35 U.S.C. 103**

#### **Claims 2, 12, 15, and 7 - Hess**

Claims 2, 12, 15, and 7 (as it depends from claim 2) stands rejected under 35 U.S.C. 103 as unpatentable over U.S. Patent No. 5,310,289, to Hess. In support of the rejection, the Office

Action notes:

"Hess discloses a device including rail posts (1, 2) having a channel (3) and shoring panels (4, 5) sliding therein.; The number of rail posts and panels is inherently left to one skilled in the art, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used at least four rail posts and eight panels in order to brace a trench extending at least four times a panel width."

Claim 2 has been re-couched in independent claim form and the requirement that the connection between the corner rail posts and showing panels be magnetic, has been added.

Although the magnetic structure related in claim 2 is sufficient to overcome Hess as an appropriate reference under 35 U.S.C. 103, it should also be noted that Hess dos not show the structure of a corner post as required by the claim.

Claims 12, 15, and 17 (as it depends from claim 2) have been cancelled and their content placed in claims that depend from independent claims 1, 2, or 3.

Withdrawal of the rejection is requested.

Although Hess differs from the disclosed technology in many fundamental ways, a few points should be kept in mind when considering the new claims now before the PTO. As noted above, there is no suggestion of using magnetic attachment to stabilize the structure during use. Hess does not suggest a structure, useful as a corner post, having a stepped vertical guide for the shoring panels. The sturdy and unique cross-truss allowing easy adjustment to trench width is not shown in Hess. Other structural differences are also apparent.

Claims 4 and 11-15 Stocker et al.

Claims 4 and 11-15 stand rejected under 35 U.S.C. 103 as unpatentable over U.S. Patent No. 4,460,258 to Stocker et al. In support of the rejection, the Office Action notes:

“Stocker et al. disclose a device having a magnetic connection (via 28) between a rail post (4) and panel (2). Regarding placement of the magnetic bars, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed the bars in any place necessary in order to obtain a desired post and panel connection. Note that while the disclosure Stocker et al. is not a trench shoring device, there are no limitations present in claims 4 and 11-15 that distinguish between the device Stocker et al. and a trench shoring device. In order for the claims to be patentably distinguishable from Stocker et al., they must positively recite structure specific to a trench shoring device.”

Claims 4 and 11-15 have been revised to a depending claim form and their content has been incorporated in claims 35-40.

As the Examiner helpfully notes, structural limitations in the claims allowing differentiation between the sign holder system of Stocker et al. and the claimed shoring system components is desirable.

Although the former claims recited in their preamble specific industry-recognized terminology, e.g., “shoring panels”, that provided substance and character to the claims, applicant has nevertheless revised the claims in this Amendment providing structural limitations, no matter which standard is applied.

Stocker et al. discloses only a sign holder system that allows attachment of a sign element using magnets at the edges of the sign element. There is no suggestion in Stocker et al. of a

modification to the structures described there that would allow the structure to be applicable to an earthen trench.

In any case, withdrawal of the rejection is requested.

### **SUMMARY**


Applicant's attorney wishes to thank the Examiner on his responsible, articulate, and extremely helpful comments to the applicant in the Office Action.

The claims are believed to be in condition for allowance; the specification has been revised and is believed to be in acceptable form. Should the Examiner wish to ask additional questions, make comments, or request additional information, he is invited to call applicant's attorney at the number listed below.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 543572000100.

Respectfully submitted,

Dated: February 12, 2003

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## VERSION WITH MARKINGS TO SHOW CHANGES MADE

### In the Specification:

A marked-up and clean copy of the specification is attached.

### In the Claims:

Claims 4-15 have been cancelled.

Claims 1, 2, and 3 have been amended as follows:

1. (Amended) A device for shoring trenches comprising:

a) at least four linear rail posts[, said linear rail posts, spaced a part along the trench en] symmetrically spacable apart along a trench in pairs and symmetrically on either side of [the] a trench; each linear rail post having [laterally on either side] opposing sides and each said opposing side having a channel for slidably accepting shoring panels, the channels having a [of] stepped cross section [shaping] formed with two or more steps[ each of them making up a vertical guide completely or partially open.],

b) at least four of said [large] shoring panels, configurable so that when two of said linear rail posts are adjacently located on either side of a trench having sides and when each of said linear rail posts is each symetrically located across the trench from another linear rail post, at least two of the shoring panels may slidingly engage the adjacent linear rail post channels to form [each of them sliding between adjacent rail posts creating] on either side of the trench a multi-step shoring wall of two or more steps; [each panel having laterally on either side a vertical guide channel and/or magnetic flat bars for the connection with the rail post.] each step defining a vertical guide completely or partially open , and

c) at least two [articulated] trusses [sliding] slidably and formlockingly positionable between linear [along the opposite] rail posts when those rail posts are symetrically located across a trench from each other; each said truss [been] comprising i.) a pair of vertical truss members slidable along a linear rail post and ii.) a pair of cross members rotatably secured to

each other and each cross member having ends configured to be pinnable to a vertical truss member, [of scissoring type, and composed uniquely by triangular cells; the cross members of the truss been pinned at their middle making free their relative rotation while their extremities are pinned in the vertical members, these lasts having several row of pinning holes] and wherein connection between the linear rail posts and panels is magnetic and either the linear rail posts or the shoring panels further comprise magnets situated to effect such a connection.

2. (Amended) A device for shoring pits comprising:

a) at least four corner rail posts[, said corner rail posts, arranged] arrangeable vertically on [each] a corner of [the] a pit, each corner rail post having two sides that are substantially perpendicular to each other, each said side having a vertical channel for slidably accepting shoring panels, the channels having a stepped cross section formed with two or more steps, [vertical channels within two perpendicular plans; each channel having stepped cross section shaping two or more steps each of them making up a vertical guide completely or partially open.] each step defining a vertical guide completely or partially open , and

b) at least eight [large] shoring panels[ as set forth in the claim 1], each panel configurable so that when said corner rail posts are adjacently located in corners of a pit, at least two of the shoring panels may slidingly engage each pair of adjacent corner rail post channels to form [sliding between adjacent rail posts creating] on each side of the pit a multi-step shoring wall of two or more steps[.], and

wherein connection between the corner rail posts and panels is magnetic and either the corner rail posts or the shoring panels further comprise magnets situated to effect such a connection.

3. (Amended) A shoring device [obtained as combination of the shoring devices as set forth in the claims 1 and 2] comprising:



a) linear rail posts spacable apart along a trench in pairs and symmetrically on either side of a trench; each linear rail post having opposing sides and each said opposing side having a channel for slidably accepting shoring panels, the channels having a stepped cross section formed with two or more steps, each step defining a vertical guide completely or partially open,

b) corner rail posts arrangeable vertically in a corner of a trench, each corner rail post having two sides that are substantially perpendicular to each other, each said side having a vertical channel for slidably accepting shoring panels, the channels having a stepped cross section formed with two or more steps, each step defining a vertical guide completely or partially open,

c) shoring panels that are i.) configurable to fit between linear rail posts adjacently located on either side of a trench having sides by slidably engaging the adjacent linear rail post channels to form on either side of the trench a multi-step shoring wall of two or more steps, ii.) configurable to fit between corner rail posts that are adjacently located by slidably engaging the adjacent corner rail post channels to form a multi-step shoring wall of two or more steps, and iii.) configurable to fit between corner rail posts and linear rail posts that are adjacently located by slidably engaging the adjacent corner rail post channels and linear rail post channels to form a multi-step shoring wall of two or more steps, and

d) at least two trusses slidably positionable along and formlockingly positionable between linear rail posts when those rail posts are symmetrically located across a trench from each other; each said truss comprising i.) a pair of vertical truss members slidable along a linear rail post and ii.) a pair of cross members rotatably secured to each other and each cross member having ends configured to be pinnable to a vertical truss member, and

wherein connection between the linear rail posts or corner rail posts and panels is magnetic and either the linear rail posts or the shoring panels further comprise magnets situated to effect such a connection.

**Please add claims 16-54.**